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apparatus for practicing the invention. The present invention can also be embodied in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical wiring or cabling, through fiber optics, or via electromagnetic radiation, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. When implemented on a general-purpose microprocessor, the computer program code segments configure the microprocessor to create specific logic circuits.

Although a number of arrangements of this invention have been mentioned by way of example, it is not intended that the invention be limited thereto. Accordingly, the invention should be considered to include any and all configurations, modifications, variations combinations equivalent arrangements or expansions falling within the scope of the following claims.

IN THE CLAIMS

New Claims 92 – 97 are presented below:

4. ~~92~~ (Newly added) A method of converting image data into a holographic pattern formed from a plurality of discrete holograms each constituting a holographic pixel and having diffraction gratings comprising:

converting said image data into digital form having a plurality of digital data characteristics;

manipulating a laser beam according to said digital data characteristics by splitting said laser beam into a reference beam and at least one object beam;

irradiating a profileable surface with said reference beam and said at least one object beam to sequentially form each of said holograms as a holographic pixel, each of said holographic pixels having a distinct interference pattern, said interference pattern

of each holographic pixel having characteristics of a corresponding discrete portion of said image data.

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5. ~~23~~ (Newly added) The method as set forth in Claim ~~22~~ further comprising adjusting distances between adjacent holographic pixels to indicate additional characteristics of said image data corresponding to said adjacent holographic pixels.

6. ~~24~~ (Newly added) The method as set forth in Claim ~~22~~ wherein said means for converting comprise means for obtaining said image data in correspondence to pixels of an image.

5. (Newly added) A storage medium encoded with machine-readable computer program code, the computer program code including instructions for causing an electro-optic system to implement a method of converting image data into a holographic pattern formed from a plurality of discrete holograms each constituting a holographic pixel and having diffraction gratings, the method comprising:

converting said image data into digital form having a plurality of digital data characteristics;

manipulating a laser beam according to said digital data characteristics by splitting said laser beam into a reference beam and at least one object beam;

irradiating a profileable surface with said reference beam and said at least one object beam to sequentially form each of said holograms as a holographic pixel, each of said holographic pixels having a distinct interference pattern, said interference pattern of each holographic pixel having characteristics of a corresponding discrete portion of said image data.